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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 09/973,802 | 10/11/2001 | Shoichi Taneichi | 0445-0309P | 8999 |
| 2292 7590 02/05/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | EXAMINER WATKINS III, WILLIAM P | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1772 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | NOTIFICATION DATE | DELIVERY MODE | |
| 3 MONTHS | | 02/05/2007 | ELECTRONIC | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/05/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/973,802 | TANEICHI ET AL. | |
| | Examiner | Art Unit | |
| | William P. Watkins III | 1772 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,7,10-13,17-21,24 and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,10-13,17-21 and 24 is/are rejected.
- 7) ☒ Claim(s) 28-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10-31-2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04 August 2006 has been entered as well as the Supplemental Amendment filed 31 October 2006.

2. The examiner has reviewed the search report filed with the IDS filed 31 July 2005.

3. Claims 28-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The examiner notes that the base reference Akihiko in the rejections given below does appear to show a thickness of the non-compressed areas in the drawings being more than twice the

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thickness of the base layer. The examiner notes however that the instant claims 28-33 require that the thickness measurements be made at specific applied pressures. There is no teaching of applying pressure to the projections and joint areas of Akihiko during measurement of thickness and no indication or motivation to insure that the thickness ratio is greater than two when the respective areas of the fabric are subject to the pressures of the instant claims. These thickness and pressure conditions in combination with the other limitations claims 28-33 define over the cited art of record.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-2, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akihiko (JP-A 09-003755, machine translation previously supplied) in view of Schleinz et al.

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(U.S. 5,612,118) further in view of Carey, Jr. (U.S. 4,551,378) and Bergman et al. (U.S. 5,624,427).

Akihiko teaches the use of a web used in a fabric in a diaper of unbonded parallel fibers that form the layer that is gathered, when joined to a layer that is heat shrunk, which comprises parallel heat shrinkable fibers. The parallel fibers of the gathered layer forming a fiber filled projection that allows for the attachment of a fastener (section 0020 and 0030 of the detailed description of the machine translation, Figure 3). Schleinz et al. teaches that a joined layer can be gathered by fibers that are heat shrunk or by elastic fibers which are stretched, discontinuously bonded to the layer to be gathered and then allowed to contract (col. 7, line 58 through col. 8, line 10, col. 4, lines 35-40). Carey Jr. et al. teaches a web of carded fibers that are latent heat shrinkable fibers. After heating of the heat shrinkable fibers, the web has elastic behavior, in that it can be stretched to over 50% of it's length and has a permanent extension of less than 20% after relaxation of the stretch tension (abstract, col. 4, lines 5-10, Table 3, claim 14). The fibers may be bi-component and are either side by side or core and sheath in material arrangement and are helically crimped by heating (abstract, Figures 1, 2 and 3).

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Bergman et al. teaches the use of an elastic sheet with raised portions that functions as the loop portion of a hook and look fastener combination (abstract).

The instant invention claims the use of crimped fibers with elastic behavior after heat shrinking that form a gathered web with projections that are fiber filled. It would have been obvious to one of ordinary skill in the art to form the gathers of the laminate of Akihiko et al. by the use previously heat shrunk crimped fibers that have elastic behavior that are stretched and then joined to the layer to be gathered and then allowed to contract in order to avoid heating all layers of the laminate of Akihiko et al. because of the teachings of Schleinz et al. and Carey et al. Bergman et al. provides evidence of there being an expectation of success in using an elastic layer as the base layer of Akihiko et al. Selection of specific fiber density is dependent on the final application and is taken as being within the ordinary skill of the art absent unexpected results.

6. Claims 6, 7, 11-13, 17-19, 20-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akihiko (JP-A 09-003755, machine translation previously supplied) in view of

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Schleinz et al. (U.S. 5,612,118) further in view of Carey, Jr. (U.S. 4,551,378) and Bergman et al. (U.S. 5,624,427) as applied to claims 1-2 and 10 above, and further in view of Zelazoski et al. (U.S. 5,536,555).

Zelazoski et al. teaches putting holes in gathered webs in order to allow good fluid intake rates when the gathered composite is used as a layer in an absorbent personal care article (col. 2, lines 1-15, abstract). Zelazoski et al. also teaches the formation of a gathered top layer by thermal contraction of materials that may be elastic in a second layer and the use of latent thermal crimped fibers in the second layer (col. 6, lines 60-65, col. 7, lines 20-35, col.8, lines 50-65, col. 9, lines 5-15). The instant invention claims a gathered web with perforations used in an absorbent article with latent crimp fibers in the elastic layer. It would have been obvious to one of ordinary skill in the art to have perforated the web of Akihiko et al. as modified above in order to have good fluid intake because of the teachings of Zelazoski et al. when used in an absorbent application. The instant claimed basis weight, density and permeability ranges are taken as being met by the combination as the absorbent article of the combination has the same uses as that taught by the instant specification and would

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therefore have similar ranges when optimized for this application absent unexpected results.

7. Applicant's arguments filed 04 August 2006 and 31 October 2006 have been fully considered but they are not persuasive.

The base rejection has been modified to recite that Carey Jr. does teach the helical crimp limitations and core/sheath or side-by-side fibers now claimed. The Bergman et al. reference has been added to establish that a female portion of a hook and loop fastener system such as taught by Akihiko et al. would function and have improved function in some applications if made elastic as taught in the base rejection. The new 60% recovery limitation is met by Carey Jr. in that the reference teaches that the fibers do not extend more than 20% beyond their original length after stretching more than 50% beyond their original length.

Applicant continues to argue that Akihiko does not teach an elastic layer and that Comparative Example 4 of the instant specification represents the product of Akihiko and thus the product of Akihiko requires features that teach away from modification by the secondary references. The examiner is unsure that Comparative Example 4 of the instant specification

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represents the product of Akihiko. Though both Comparative Example 4 and the Example of Akihiko use heat shrinkable fibers that are described as being of PNE in the carded web that shrinks, the examiner notes that Comparative Example 4 is described as having the bonding pattern of instant Figure 3, which shows a product without the large degree of bulking shown for Figure 4 of the instant specification, which represents the bonding and bulking pattern of the examples of the invention given in instant Table 1. Figures 1 and 3 of Akihiko show large bulked structures that appear to be closer to the shapes in the instant examples than to the bonding and bulking pattern of Comparative Example 4. The examiner thus disputes applicant's assertion that Comparative Example 4 represents the product of Akihiko.

Regarding the argument that Akihiko is not elastic at all and that becoming elastic would destroy the function of Akihiko, if applicant's argument regarding Comparative Example 4 is correct, than Akihiko would have a substantial elastic nature as Comparative Example 4 has substantial elastic elongation and recovery values that are just outside of the instant ranges. Thus modification by the secondary references would not destroy the function and structure of Akihiko as argued by applicant.

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The examiner further notes that Bergman et al. establishes that one of ordinary skill in the art would not expect that Akihiko would fail in function, if the secondary layer were made elastic as called for in the above rejection.

Regarding the secondary references applicant continues to argue that Schleinz et al. does not teach a carded web or filled protrusions, that Carey, Jr. does not teach multiple layers and that Zelazoski et al. teaches a top fibrous web. The examiner does not rely on these references for these features and does not believe that the absence of these features in the secondary references would deter one of ordinary skill in the art from transferring the features and teachings relied upon by the examiner.

Schleinz et al. deals with alternate ways to form a gathered web, formation of such a web being the problem of the both the instant invention and of Akihiko. Schleinz states that a gathered web can be formed by stretching an elastic web, joining to a less elastic layer, and subsequent contraction. This teaching provides motivation to look for carded fiber webs, such as used in Akihiko, which would also be elastic and have good recovery so as to form and maintain good protrusion as required by Akihiko. A web that meets these conditions is

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supplied by Carey, Jr. Thus there is motivation to make such a substitution to use an alternate process and an expectation of success since the function of Akihiko that requires filled protrusions would not be destroyed.

There is also motivation to use the perforations of Zelazoski et al. to allow use of the gathered web of Akihiko as modified above, as a top sheet. Holes in a gathered film and holes in a gathered fibrous web will both conduct water. Zelazoski et al. showing a film does not teach away from the combination.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 571-272-1503. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on

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access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "William P. Watkins III". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

WW/ww

January 31, 2007

**WILLIAM P. WATKINS III
PRIMARY EXAMINER**